**3GPP TSG-SA3 Meeting #106-e  *S3-220xxx***

**e-meeting, 14 - 25 February 2021**

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| *CR-Form-v12.1* |
| **CHANGE REQUEST** |
|  |
|  | **33.501** | **CR** | **xxxx** | **rev** | **-** | **Current version:** | **15.14.1** |  |
|  |
| *For* [***HE******LP***](http://www.3gpp.org/3G_Specs/CRs.htm#_blank)*on using this form: comprehensive instructions can be found at* [*http://www.3gpp.org/Change-Requests*](http://www.3gpp.org/Change-Requests)*.* |
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| ***Proposed change affects:*** | UICC apps |  | ME |  | Radio Access Network |  | Core Network |  |

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| ***Title:***  | Editorial correction on clause 11.1.3 and 11.1.4 in TS 33.501 |
|  |  |
| ***Source to WG:*** | LG Electronics |
| ***Source to TSG:*** | S3 |
|  |  |
| ***Work item code:*** | TEI15 |  | ***Date:*** | 2022-02-18 |
|  |  |  |  |  |
| ***Category:*** | **F** |  | ***Release:*** | Rel-15 |
|  | *Use one of the following categories:****F*** *(correction)****A*** *(mirror corresponding to a change in an earlier release)****B*** *(addition of feature),* ***C*** *(functional modification of feature)****D*** *(editorial modification)*Detailed explanations of the above categories canbe found in 3GPP [TR 21.900](http://www.3gpp.org/ftp/Specs/html-info/21900.htm). | *Use one of the following releases:Rel-8 (Release 8)Rel-9 (Release 9)Rel-10 (Release 10)Rel-11 (Release 11)…Rel-15 (Release 15)Rel-16 (Release 16)Rel-17 (Release 17)Rel-18 (Release 18)* |
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| ***Reason for change:*** | Some editorial corrections in clause 11.1.3 are required.The text style of the title of clause 11.1.4 is wrongly set as the normal body text.  |
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| ***Summary of change:*** | It is proposed to correct the editorial issues |
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| ***Consequences if not approved:*** | Editorial issues remain in the specificaiton and the clause 11.1.4 cannot be not shown in the navigation pane, so it may be difficult for readers to find it.  |
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| ***Clauses affected:*** | 11.1.3, 11.1.4 |
|  |  |
|  | **Y** | **N** |  |  |
| ***Other specs*** |  | **X** |  Other core specifications  | TS/TR ... CR ...  |
| ***affected:*** |  | **X** |  Test specifications | TS/TR ... CR ...  |
| ***(show related CRs)*** |  | **X** |  O&M Specifications | TS/TR ... CR ...  |
|  |  |
| ***Other comments:*** |  |
|  |  |
| ***This CR's revision history:*** |  |

\*\*\* 1st CHANGE \*\*\*

### 11.1.3 Re-Authentication



Figure 11.1.3-1: EAP Re-Authentication with an external AAA server

This procedure concerns both roaming and non-roaming scenarios. In the non-roaming and LBO roaming cases, only one SMF is involved. In the HR roaming case, the V-SMF shall proxy the signalling between the AMF in the VPLMN and the H-SMF in the HPLMN.

1-3 Secondary Authentication has been established according to procedures specified in clause 11.1.2, Initial EAP Authentication with an external AAA server.

Secondary Re-authentication may either be initiated by SMF or the external DN/AAA server. If Re-authentication is initiated by SMF, the procedure proceeds with step 4 (skipping steps 4a and 4b). If Re-authentication is initiated by the external DN/AAA server, the procedure proceeds with the alternative steps 4a and 4b.

4. The SMF decides to initiate Secondary Re-Authentication.

4a. The DN AAA server decides to initiate Secondary Re-Authentication.

4b. The DN AAA shall send a Secondary Re-Authentication request to UPF, and the UPF forwards it to SMF. The Secondary Re-authentication request contains the GPSI, if available, and the IP/MAC address of the UE allocated to the PDU Session and the MAC address if the PDU session is of Ethernet PDU type.

5. The SMF shall send an EAP Request/Identity message to the UE.

6. The UE shall respond with an EAP Response/Identity message (with Fast-Reauth Identity).

7. The SMF forwards the EAP Response/Identity to UPF, selected during initial authentication, over N4 interface.

This establishes an end-to-end connection between the SMF and the external DN-AAA server for EAP exchange.

8. The UPF shall forward the EAP Response/Identity message to the DN AAA Server.

9. The DN AAA server and the UE shall exchange EAP messages as required by the EAP method.

10. After the completion of the authentication procedure, DN AAA server either sends EAP Success or EAP Failure message to the SMF.

11. This completes the Re-authentication procedure at the SMF.

12-13. If the authentication is successful, EAP-Success shall be sent to UE.

12-14. If authentication is not successful, the SMF notifies failure to UPF. Upon completion of a N4 Session Modification procedure with the selected UPF, SMF sends EAP-Failure to UE via AMF.

\*\*\* 2nd CHANGE \*\*\*

### 11.1.4 Secondary Authentication and Authorization Revocation

At any time, a DN-AAA server may revoke the authentication and authorization for a PDU Session and according to the request from the DN-AAA server, the SMF may release the PDU Session as specified in sub-clause 4.3.4 of TS 23.502 [8].

\*\*\* END OF CHANGES \*\*\*